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NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER
ELPENORD, CANDAL

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/521,480	VAN NIEUWENHUIZEN, PETERJAN
	Examiner	Art Unit
	Candal Elpenord	2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _18 January 2005_.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _1-20_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-5, 7-12, 14, 16, 18 and 20_ is/are rejected.

7)☐ Claim(s) _6, 13, 15, 17 and 19_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _18 January 2005_ is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _18 January 2005_.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____ .

DETAILED ACTION

Drawings

1.   The drawings are objected to because all the blocks in Fig. 1 should be labeled with descriptive legends. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2.   In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the

amendment or remarks section that explains the change(s) to the drawings. See 37

CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy

will result in the abandonment of the application.

Claim Rejections - 35 USC § 101

3.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

Claim 20 is rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter.

Regarding claim 20, the limitation "a program storage device" recited in line 1 is

not a process, machine, manufacturer, or composition of matter, or any new and useful

improvement thereof because there is no physical structure/connection of the computer

software recited in the claim. To overcome this rejection, it is suggested to applicant to

change "computer program product" to --computer readable medium encoded with

computer executable instructions--.

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

5.   **Claim 8** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

Regarding claim 8, the occurrence of the phrase "the parameter xi" recited in

line 1 has no antecedent basis.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

8.   **Claims 1-5, 7, 9-12, 14, 16, 18 and 20** are rejected under 35 U.S.C. 103(a) as

being unpatentable over Litwin et al (US 2003/0145098) in view of Loguinov et al (US

7,206,285 B2).

Regarding claims 1-5, 7-12,14-16, 18 and 20, regarding claim 1, Litwin et al.

discloses a method of controlling the rate of data transmission from a source of data to

a user via a communications link, wherein processing means are provided to generate a

signal representing a rate request which will be used in determining the rate at which

data will be transmitted from the source to the user, the processing means generating

the signal by carrying out the steps of: (a) obtaining ("**detection of congestion**

level" recited in **paragraph 0008 line 7-10**) an indication of the amount of congestion

on the communications link (**Fig. 2, "link between network controller 220 and**

network device 230c, recited in **paragraph 0030, lines 1-6**) , selecting a value

indicative of the user's willingness to pay ("**second selection for cost specification**"

recited in **paragraph 0010, lines, 9-11**) given transmission data rate ("**user's**

transmission content" recited in **paragraph 0010, lines 7-9**) and the user's willingness

to pay weighted by a variable parameter ("**varying const**" recited in **paragraph 0017**

line 1-9), the processing means signal (**Fig. 3A, device 317-**"**provide level of**

congestion and cost of service to user (audibly and /or visually" recited in

paragraph 0036 line 1-11) thereafter communicating the signal to the source of data,

regarding claim 3, discloses a method, wherein the value of the variable parameter

varies continuously ("**cost of service threshold increment**" recited in **paragraph 0039**

line 1-9), **regarding claim 4**, a method, wherein the indication of congestion is the

product ("**cost of service being proportional to congestion level**" recited in

paragraph 0029, lines 9-12) of a congestion charge (**Fig. 3A, step 310-**"**cost of**

service relative to congestion" recited **in paragraph 0034 line1-3 and paragraph**

0008, lines 1-7), **regarding claim 5**, a method, wherein the value of the variable

parameter varies (**Fig. 3A, step 330 "cost comparison in relation to congestion**"

recited in **paragraph 0043, lines 1-5**) in accordance with the difference between the

user's willingness to pay and the indication of the amount of congestion ("**calculation of**

cost of service" recited in **paragraph 0010, lines 5-6**), **regarding claims 7 and 14**, a

method, wherein if the difference ("**cost of service rises above threshold**" recited in

paragraph 0046, lines 4-10) between the indication of the amount of congestion and

the user's willingness to pay ("**cost of service below user threshold**", recited in

paragraph 0044, lines 1-5) , **regarding claim 10**,   the processing means("**detection**

of congestion level" recited in **paragraph 0008 line 7-10**) including means (**Fig. 3A,**

"**determining congestion level 305**", recited in **abstract, lines 2-3**) for obtaining an

indication of the amount of congestion on the communications link (**Fig. 2,**

"**communication network 210**", recited in **paragraph 0029, lines 12-13**),   selecting

means ("**second selection for cost specification**" recited in **paragraph 0010, lines,**

9-11) for selecting a value indicative of the user's willingness to pay for a given

transmission data rate ("**specifying downloaded content**", recited in **paragraph 0010,**

lines 7-9) , and the USER&#x0;S willingness (**Fig. 3A,** "**selection of cost service**

threshold by user step 325", recited in **abstract, lines 8-10**) to pay weighted by a

variable parameter ("**varying const**" recited in **paragraph 0017 line 1-9**), the

processing means (**Fig. 3A,   device 317-"provide level of congestion and cost of**

service to user (audibly and /or visually" recited in **paragraph 0036 line 1-11**)

further including means for communicating the signal to the source, **regarding claim**

11, a rate controller (**Fig. 2,** "**Network controller 220**", recited in **paragraph 0029, lines**

1-9) wherein the determining means (**Fig. 3B, step 340** "**cost of service and**

threshold" recited in **paragraph 0046, lines 1-10**) is adapted to, determine the

difference between the user's willingness to pay and the indication of the amount of

congestion, and vary the value of the variable parameter ("**varying the rates charged**"

recited in **paragraph 0017, lines 4-9**) in accordance with the difference, **regarding claim 16**, a method of obtaining an indication of the amount of congestion on the communications link ("**congestion level**", recited in **paragraph 0010, lines 3-5**), selecting a value indicative of the user's willingness to pay for a given transmission data rate ("**user second selection**", recited in **paragraph 0010, lines 9-11**), **regarding claim 18**, the processing means including means ("**determining congestion level**", recited in **paragraph 0010, lines 3-5**) for obtaining an indication of the amount of congestion on the communications link (**Fig. 2, "link between network controller 220 and network device 230c**, recited in **paragraph 0030, lines 1-6**), selecting means ("user second selection-cost of service", recited in paragraph 0010, lines, 9-11) recited for selecting a value indicative of the USER&#x0;S willingness to pay for a given transmission data rate ("**first selection specifying content to be downloaded**", recited in **paragraph 0010, lines 7-9**), **regarding claim 20**, Litwin discloses a program storage device (**Fig.1, "storage device 118**" recited in **paragraph 0022 line 2-5**) readable by a processing apparatus (**Fig. 1, "processor 102**" recited in **paragraph 0022 line 3-9**), the device embodying a program of instructions executable by the processor to perform the steps (**see paragraph 0020 line 1-21**) of obtaining an indication of the amount of congestion on the communications link, and selecting a value indicative of the user's willingness to pay for a given transmission rate as recite above in **claim1**.

Litwin **et al.** teaches all the subject matter of the claimed invention with the exception of disclosing the following features, **regarding claim 1**, determining the rate

to be requested as a function of indication of the amount of congestion, wherein the rate

of the data transmission from the source to the user is controlled on the basis of the

signal, **regarding claim 4**, a previously determined data rate, **regarding claim 7**, a

method, wherein if the difference between the indication of the amount of congestion

and the user's willingness to pay falls within a predetermined range a first data rate is

requested, and if the difference between the indication of the amount of congestion and

the user's willingness to pay falls outside the predetermined range a second different

data rate is requested, **regarding claim 10**, rate controller for controlling the rate of

data transmission from a source to a user via a communications link, the rate controller

including processing means for generating a signal representing a rate request which

will be used in determining the rate at which data will be transmitted from the source to

the user, **regarding claim 12**, a rate controller, wherein the determining means

determines a first rate to be requested if the difference between the indication of the

amount of congestion and the selected value falls within a predetermined range, and a

second different data rate to be requested if the difference between the indication of the

amount of congestion and the value falls outside the predetermined range, **regarding

claim 16**, determining the rate to be requested on the basis of the ratio of the value to

the indication of the amount of congestion on the communications link, **regarding claim

18**, determining means for determining the rate to be requested on the indication of the

amount of congestion on the communications link, wherein the rate of the data

transmission from the source to the user is controlled on the basis of the signal.

However, **Loguinov et al**. in a similar field of endeavor, **regarding claim 1**, discloses a

method for determining the rate to be requested as function of the indication of the

amount of congestion (**Fig.3, congestion Feedback controller-"rate adjustment with

depending on congestion**" recited in **column 2 line 50-56**), wherein the rate

("**congestion controller**", recited in **column, lines 20-25**), of the data transmission

from the source to the user is controlled on the basis of the signal (**Fig. 2, "congestion

Feedback arrow" recited in column 4, lines 3-6**), **regarding claim 4**, and a

previously determined data transmission rate ("**maximum data transmission rate**",

recited in abstract, lines 8-10), **regarding claim 7**, a rate controller ("**means for

determining bandwidth capacity**" recited in **column 3, line 1-7**), wherein the

determining means ("**means for adjusting the sender rate**", recited in **column 3, line

7-10**) determines a first rate ("**first rate**" recited in **column 3, lines 10-12**) to be

requested if the difference between the indication of the amount of congestion and the

selected value falls within a predetermined range ("**bandwidth capacity**", recited in

column 3, lines 5-8) and a second different rate ("**second rate and predetermined

range**" recited in **column 3, line 12-16**) to be requested if the difference between the

indication of the amount of congestion and the value falls outside the predetermined

range ("**traffic on network exceeds network capacity**" recited in **column 4, line 9-

13**), **regarding claim 10**, a rate controller for controlling the rate of data transmission

from a source to a user via a communications link, the rate controller ("**determining

bandwidth capacity**" recited in **column 2, lines 50-56**) including processing means

("**congestion control**", recited in **column 2, lines 65-67**) for generating a signal

("**feedback information**", recited in **column 4, lines 2-7**) representing a rate request

("**sender's rate**", recited in **column 2, lines 8-10**) which will be used in determining the

rate at which ("**source to destination**", recited in **column 3, lines 1-3**) data will be

transmitted from the source to the user, **regarding claim 12**, a rate controller ("**means**

for determining bandwidth capacity" recited in **column 3, line 1-7**), wherein the

determining means ("**means for adjusting the sender rate**", recited in **column 3, line**

7-10) determines a first rate ("**first rate**" recited in **column 3, lines 10-12**) to be

requested if the difference between the indication of the amount of congestion and the

selected value falls within a predetermined range("**bandwidth capacity**", recited in

column 3, lines 5-8), and a second different data rate ("**second rate and**

predetermined range" recited in **column 3, line 12-16**) to be requested if the

difference between the indication of the amount of congestion and the value falls

outside the predetermined range ("**traffic on network exceeds network capacity**"

recited in **column 4, line 9-13**), **regarding claim 16**, a method ("**determining**

bandwidth capacity" recited in **column 3, lines 1-4**) for controlling the rate of data

transmission from a source of data to a user via a communications link (**Fig. 1**,

"**communication link 10**", recited in **column 3, lines 55-59**), wherein processing

means are provided to generate a signal ("**feedback information**", recited in **column 4,**

lines 2-7) representing a rate request ("**sender rate**", recited in **column 2, lines 8-10**)

which will be used in determining the rate at which data will be transmitted from the

source to the user, the processing means generating the signal by carrying out the

steps of: determining the rate (**Fig.3, congestion Feedback controller-"rate**

adjustment with depending on congestion" recited in **column 2 line 50-56**), to be

requested on the basis of the ratio of the value to the indication of the amount of

congestion on the communications link (**Fig. 1, "communication link 10"**, recited in

column 3, lines 55-59 , regarding claim 18, determining means ("**adjustment of**

sender rate" recited in **abstract, lines, 1-8**) for determining the rate to be requested as

on the basis of the indication of the amount of congestion on the communications link

(**Fig. 1, "communication link 10**, recited in **column 3, lines 55-59**), the processing

means ("**congestion controller**" recited in **column 4, lines 20-25**) further including

means (**Fig. 2, "congestion Feedback from source 18, to destination 22**" recited in

column 2-3, lines 65-70) for communicating the signal to the source, wherein the rate

("**transmission packet rates" recited in column 4, lines 2-7**) of the data transmission

from the source to the user is controlled on the basis of the signal (**Fig. 2, congestion**

feedback arrow"), **regarding claim 20**, program storage device (**Fig. 3, packet buffer**

34, recited in column 4, lines 16-20), determining the rate ("**adjusting sender rate**

according to congestion detected", recited **in column 2, lines 49-56**) to be requested

as function of the indication of the amount of congestion, the processing means

thereafter communicating the signal and the rate of the data transmission from the

source to the user then being controlled on the basis of the signal (**Fig. 2, "congestion**

Feedback arrow" recited in column 4, lines 3-6) according the method of **claim 1**.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the adaptive cost of service for communication network based on

the level of network congestion of Litwin et al. by using the method for supporting non-

linear, high scalable increase-decrease congestion control scheme as taught by

Loguinov et al. in order to provide to provide.............. (See Loguinov, column 4, lines 39-48 for motivation).

5.   **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Litwin et al. in view of Loguinov et al. as applied to claim 1 above, and further view of Arai et al (US 2002/0002470 A1).

Litwin et al. and Loguinov et al. disclose all the claim limitations above, are silent with regard to a method, wherein the variable parameter assumes discrete values. However, Arai et al. in a similar field of endeavor discloses a method, wherein the variable parameter (**"charging rate variations"**, recited in **paragraph 0052, lines 8-17**) assumes discrete values (**"yen per minutes or yen per bytes"**, recited in **paragraph 0052, lines 9 and 14**). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method and systems of Litwin et al. with Loguinov et al. by using the features as taught by Arai et al, in order to provide.................... (See Arai, paragraph 0011, lines 1-14 for motivation)

9.   **Claims 9 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over Litwin et al. in view of Logiunov et al. as applied to claim 5 and 10 above, and further in view of Kirkby et al. (US 6,671,285 B1).

Litwin et al. and Logiunov et al. disclose all the all the claim limitations above with the exception of a method wherein the step of providing an indication of amount of congestion includes determining a marking rate m of incoming data transmitted on the

communications link and wherein the congestion charge is determined from the marking

rate as recited in claim 9, a rate controller, wherein the means for obtaining an

indication of the amount of congestion comprises metering means for determining a

marking rate of incoming data transmitted on the communications link as recited in

claim 14. However, Kirkby et al. teaches a method wherein the step of providing an

indication of amount of congestion includes determining a marking rate m ("means to

control transmission bandwidth" recited in column 2-3, line 65-70) of incoming data

transmitted on the communications link and wherein the congestion charge is

determined from the marking rate ("charging rate dependent on bandwidth

utilization" recited in column 2 line, 6-12) as recited in claim 9, a rate controller

("control means to control bandwidth" recited in column 2-3, line 67-70), wherein

the means for obtaining an indication of the amount of congestion comprises metering

means ("charging rate based on bandwidth utilization" recited in column 3, line 41-

49) for determining a marking rate of incoming data transmitted on the communications

link as recited in claim 14. Therefore, it would have been obvious to one of ordinary

skill in the art at the time of the invention to modify the adaptive cost of service for

communication network based on level of network congestion with of Litwin et al. with

Loguinov et al by using features as taught by Kirkby et al. in order to

provide.................... (See Kirkby, column 5, lines 5-30)

Allowable Subject Matter

10.   **Claims 13,15, 17, and 19** are objected to as being dependent upon a rejected

base claim, but would be allowable if rewritten in independent form including all of the

limitations of the base claim and any intervening claims.

Conclusion

11.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. Kamiya et al (US 5,974, 033), Shaffer at al (US 5,898,668),

Mukai et al (US 7,209,443 B2), and Wilson et al (US 2001/0032269 A1) are cited to

show methods and systems that are relevant to claimed invention.

12.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Candal Elpenord whose telephone number is (571) 270-

3123. The examiner can normally be reached on Monday through Friday 7:30AM to

5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kwang Bin Yao can be reached on (571) 272-3182. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

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CE

KWANG BIN YAO
SUPERVISORY PATENT EXAMINER